

Data Validation Checklist Semivolatile Organic Analyses

Project: 35TH Avenue Superfund Site
 Laboratory: TestAmerica – Savannah, GA
 Method: SW-846 8270D Low-Level (PAH)
 Matrix: Soil
 Reviewer: Karen M Trujillo, URS Group, Inc.
 Concurrence¹: Martha Meyers-Lee, URS Group, Inc.

Project No: 60430028; 1
 Job ID.: 680-109515-1
 Associated Samples: Refer to **Attachment A** (Sample Summary)
 Samples Collected: 01/26/2015
 Date: 10/19/2015
 Date: 10/23/2015

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample storage and preservation requirements met? If temperature >6°C, then J/UJ flag results.	✓				
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Were holding times met (≤7 and 14 days from collection to extraction for aqueous and solid samples, respectively; ≤40 days from extraction to analysis)? If not, then J/UJ flag sample results. If grossly (2x) exceeded, then flag J/R.	✓				
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?	✓				
8. Were samples with analyte concentrations exceeding the calibration range of the instrument re-analyzed at a higher dilution? If not, then J flag sample result.	✓				
9. Was a method blank extracted with each batch (i.e., one per 20 samples, per batch, per matrix and per level)?	✓				
10. Were target analytes detected in the method blank?		✓			
11. Are equipment/rinsate blanks associated with every sample? If no, note in DV report.		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank is not associated with this sampling event. Blank contamination will be evaluated based on method blank results.	

¹ Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
12. Were target analytes detected in equipment/rinsate blanks?			✓		
13. Were analytes detected in samples below the blank contamination action level? If yes, U flag positive sample results <5x associated blank concentration (10x for common blank contaminants–phthalates)			✓	Blank contamination does not exist.	
14. Is a field duplicate associated with this Job?		✓			
15. Was precision deemed acceptable as defined by the project plans?			✓		
16. Were DFTPP ion abundance criteria (i.e., Table 3 of SW-846 8270D) met? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓			Alternate tuning criteria were used by the laboratory (i.e., EPA Method 525.2). All ion abundance criteria were met per EPA Method 525.2.	
17. Were samples analyzed within 12 hours of the DFTPP tune? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓				
18. Were initial and continuing calibration standards analyzed at the proper frequency for each instrument? <ul style="list-style-type: none"> Ensure that a minimum of five standards are used for the initial calibration. If no, use professional judgment to determine the effect on the data and note in the reviewer narrative. An initial calibration is to be associated with each sample analysis. A continuing calibration standard is to be analyzed for every 12 hours of sample analysis per instrument. 	✓			<ul style="list-style-type: none"> Instrument ID: CMSK Initial Calibration: 02/04/2015 ICV: 02/04/15 @ 11:59 CCV: 02/06/15 @ 12:54 and 02/07/15 @ 10:20 	
19. Were calibration results within laboratory/project specifications? <ul style="list-style-type: none"> ICAL (Criteria: ≤ 20 mean %RSD ($\leq 50\%$ for poor performers), OR $r \geq 0.995$, OR $r^2 \geq 0.99$, and $RRF \geq 0.050$ (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %RSD > 20 (>50% for poor performers), or $r < 0.995$, or $r^2 < 0.995$, then J flag positive results and UJ flag non-detects If mean RRF < 0.050 (<0.010 for poor performers), then J flag positive results and R flag non-detects (unless the lab analyzed a detectability check standard) ICV and CCV (ICV Criteria: $\leq \pm 30\%D$; CCV Criteria: $\leq \pm 20\%D$ ($\leq 50\%$ for poor performers) and $RF \geq 0.050$ (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %D > Control Limit (>50% for poor performers), then J flag positive results and UJ flag non-detects If RF < 0.050 (<0.010 for poor performers), then UJ flag non-detected semivolatile target compounds 	✓				
20. Was a LCS prepared for each batch and matrix?	✓				
21. Were LCS recoveries within lab control limits? If no, J flag positive results when %R > Upper Control Limit (UCL) and J/R flag results	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
when %R < Lower Control Limit (LCL).					
22. Were LCS/LCSD RPD within lab specifications? If no, J flag positive results and UJ flag non-detects			✓	LCS only	
23. Was a MS/MSD pair extracted at the proper frequency (one per 20 samples per batch)?	✓				
24. Is the MS/MSD parent sample a project-specific sample?	✓			Batch 369207: 680-109515-6 (CV0511AB3-GS12"), MS/MSD	
25. For all analytes with native sample concentrations < 4 x spiking level, were MS and MSD recoveries within laboratory/project specifications? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. If either MS or MSD recovery meets control limits, qualification of data is not warranted. MS and MSD %R < 10: J and R Flag positive and ND results, respectively MS and MSD %R > 10 and < LCL: J Flag positive and UJ flag non-detect results MS and MSD R% > UCL (or 140): J Flag positive results 	✓				
26. For all analytes with native sample concentrations < 4 x spiking level, were laboratory criteria met for precision during the MS and MSD analyses? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. If %RPD > UCL, J flag positive result and UJ flag non-detect result 	✓				
27. Were surrogate recoveries within lab/project specifications? <ul style="list-style-type: none"> If %R for 1 Acid or BN surrogates < 10, then J flag positive and R flag non-detect associated sample results (i.e., acid or BN results) If 2 or more Acid or BN %R > UCL, then J flag positive associated sample results (i.e., acid or BN results) If 2 or more Acid or BN %R ≥ 10%, but < LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) If 2 or more Acid or BN, with 1 %R > UCL and 1 %R ≥ 10%, but < LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) 		✓		Surrogate o-terphenyl was not recovered (0%) during the diluted analysis of samples 680-109515-5, -10, and -14. Qualification of sample results is not warranted, as the surrogate compound was diluted out of the samples.	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
28. Were internal standard (IS) results within lab/project specifications? <ul style="list-style-type: none"> If IS area counts are less than 50% of the midpoint calibration standard, then J flag positive and UJ flag non-detect associated sample results If IS area counts are greater than 100% of the midpoint calibration standard, then J flag positive results If extremely low area counts are reported or performance exhibits a major abrupt drop-off, then a severe loss of sensitivity is indicated, J flag positive and R flag non-detect results If retention time of sample's internal standard is not within 30 seconds of the associated calibration standard, R flag associated data. The chromatographic profile for that sample must be examined to determine if any false positives or negatives exists. For shifts of large magnitude, the reviewer may consider partial or total rejection of the data for that sample fraction. Positive results need not be qualified as R, if mass spectral criteria are met. 	✓				
29. Were lab comments included in report?	✓			Refer to Attachment B (Case Narrative)	
Comments: The data validation was conducted in accordance with the <i>Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1</i> (OTIE, October 2012). The data review process was modeled after the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Methods Data Review</i> (EPA, October 1999) and <i>USEPA CLP NFG for Low Concentration Organic Methods Data Review</i> (EPA, June 2001). Sample results have been qualified based on the results of the data review process (Attachment C). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.					

DV Flag Definitions:

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R The sample results are unusable. The analyte may or may not be present in the sample.
- U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
- UJ The analyte was not detected above the limit, and the limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A
SAMPLE SUMMARY

SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-109515-1

Sdg Number: 680-109515-01

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-109515-1	CV0511A-CS6"	Solid	01/26/2015 1350	01/31/2015 0852
680-109515-2	CV0511A-CS12"	Solid	01/26/2015 1355	01/31/2015 0852
680-109515-3	CV0511A-CS18"	Solid	01/26/2015 1400	01/31/2015 0852
680-109515-4	CV0511A-CS24"	Solid	01/26/2015 1405	01/31/2015 0852
680-109515-5	CV0511AB3-GS6"	Solid	01/26/2015 1435	01/31/2015 0852
680-109515-6	CV0511AB3-GS12"	Solid	01/26/2015 1440	01/31/2015 0852
680-109515-6MS	CV0511AB3-GS12"	Solid	01/26/2015 1440	01/31/2015 0852
680-109515-6MSD	CV0511AB3-GS12"	Solid	01/26/2015 1440	01/31/2015 0852
680-109515-7	CV0511AB3-GS18"	Solid	01/26/2015 1445	01/31/2015 0852
680-109515-8	CV0511AB3-GS24"	Solid	01/26/2015 1450	01/31/2015 0852
680-109515-9	CV0511AB3-CS0-4"	Solid	01/26/2015 1445	01/31/2015 0852
680-109515-10	CV0511AB2-GS6"	Solid	01/26/2015 1515	01/31/2015 0852
680-109515-11	CV0511AB2-GS12"	Solid	01/26/2015 1520	01/31/2015 0852
680-109515-12	CV0511AB2-GS18"	Solid	01/26/2015 1525	01/31/2015 0852
680-109515-13	CV0511AB2-GS24"	Solid	01/26/2015 1530	01/31/2015 0852
680-109515-14	CV0511AB2-CS0-4"	Solid	01/26/2015 1515	01/31/2015 0852

ATTACHMENT B
CASE NARRATIVE

CASE NARRATIVE
Client: Oneida Total Integrated Enterprises LLC
Project: 35th Avenue Superfund Site
Report Number: 680-109515-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 1/31/2015 8:52 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3° C and 2.1° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) LOW LEVEL PAH

Samples CV0511A-CS6" (680-109515-1), CV0511A-CS12" (680-109515-2), CV0511A-CS18" (680-109515-3), CV0511A-CS24" (680-109515-4), CV0511AB3-GS6" (680-109515-5), CV0511AB3-GS12" (680-109515-6), CV0511AB3-GS18" (680-109515-7), CV0511AB3-GS24" (680-109515-8), CV0511AB3-CS0-4" (680-109515-9), CV0511AB2-GS6" (680-109515-10), CV0511AB2-GS12" (680-109515-11), CV0511AB2-GS18" (680-109515-12), CV0511AB2-GS24" (680-109515-13) and CV0511AB2-CS0-4" (680-109515-14) were analyzed for Semivolatile Organic Compounds (GC/MS) Low level PAH in accordance with EPA SW846 Method 8270D. The samples were prepared on 02/02/2015 and analyzed on 02/06/2015 and 02/07/2015.

Method(s) 8270D_LL_PAH: Manual integration was performed on the following sample(s): CV0511AB2-GS12" (680-109515-11), CV0511AB2-GS18" (680-109515-12), CV0511AB2-GS24" (680-109515-13), CV0511AB3-CS0-4" (680-109515-9), CV0511AB3-GS12" (680-109515-6), CV0511AB3-GS24" (680-109515-8), CV0511A-CS12" (680-109515-2), CV0511A-CS24" (680-109515-4), CV0511A-CS6" (680-109515-1), CV0511AB2-CS0-4" (680-109515-14), CV0511AB2-GS6" (680-109515-10), CV0511AB3-GS6" (680-109515-5), CV0511A-CS18" (680-109515-3).

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix: CV0511AB2-CS0-4" (680-109515-14), CV0511AB2-GS6" (680-109515-10), CV0511AB3-GS6" (680-109515-5). Due to the dilution, surrogate recoveries are outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICP)

Samples CV0511A-CS6" (680-109515-1), CV0511A-CS12" (680-109515-2), CV0511A-CS18" (680-109515-3), CV0511A-CS24" (680-109515-4), CV0511AB3-GS6" (680-109515-5), CV0511AB3-GS12" (680-109515-6), CV0511AB3-GS18" (680-109515-7), CV0511AB3-GS24" (680-109515-8), CV0511AB3-CS0-4" (680-109515-9), CV0511AB2-GS6" (680-109515-10), CV0511AB2-GS12" (680-109515-11), CV0511AB2-GS18" (680-109515-12), CV0511AB2-GS24" (680-109515-13) and CV0511AB2-CS0-4" (680-109515-14) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 02/02/2015 and analyzed on 02/03/2015 and 02/04/2015.

Method(s) 6010C: The following sample(s) was diluted due to the presence of manganese which interferes with lead: CV0511A-CS12" (680-109515-2), CV0511A-CS24" (680-109515-4). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample(s) was diluted due to the presence of iron which interferes with aluminum, arsenic, and lead: CV0511A-CS18" (680-109515-3). Elevated reporting limits (RLs) are provided.

Aluminum, Arsenic and Iron have recovery outside criteria high for the MS of sample CV0511AB3-GS12"MS (680-109515-6) in batch 680-369546.

Aluminum and Iron have recovery outside criteria high for the MSD of sample CV0511AB3-GS12"MSD (680-109515-6) in batch 680-369546.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS/MOISTURE

Samples CV0511A-CS6" (680-109515-1), CV0511A-CS12" (680-109515-2), CV0511A-CS18" (680-109515-3), CV0511A-CS24" (680-109515-4), CV0511AB3-GS6" (680-109515-5), CV0511AB3-GS12" (680-109515-6), CV0511AB3-GS18" (680-109515-7), CV0511AB3-GS24" (680-109515-8), CV0511AB3-CS0-4" (680-109515-9), CV0511AB2-GS6" (680-109515-10), CV0511AB2-GS12" (680-109515-11), CV0511AB2-GS18" (680-109515-12), CV0511AB2-GS24" (680-109515-13) and CV0511AB2-CS0-4" (680-109515-14) were analyzed for Percent Solids/Moisture in accordance with EPA SW-846 Method 9045. The samples were prepared on 02/02/2015 and analyzed on 02/03/2015 and 02/04/2015.

(680-109515-11), CV0511AB2-GS18" (680-109515-12), CV0511AB2-GS24" (680-109515-13) and CV0511AB2-CS0-4" (680-109515-14) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 01/31/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ATTACHMENT C
QUALIFIED SAMPLE RESULTS

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511A-CS6"</u>	Lab Sample ID: <u>680-109515-1</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0617.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 13:50</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.07(g)</u>	Date Analyzed: <u>02/06/2015 18:38</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>26.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		9.0	4.5
208-96-8	Acenaphthylene	9.0	U	9.0	4.5
120-12-7	Anthracene	19		9.0	4.5
56-55-3	Benzo[a]anthracene	92		9.0	4.5
50-32-8	Benzo[a]pyrene	87		9.0	1.6
205-99-2	Benzo[b]fluoranthene	150		9.0	4.5
191-24-2	Benzo[g,h,i]perylene	64		9.0	4.5
207-08-9	Benzo[k]fluoranthene	49		9.0	2.7
218-01-9	Chrysene	110		9.0	4.5
53-70-3	Dibenz(a,h)anthracene	19		9.0	4.5
206-44-0	Fluoranthene	180		9.0	4.5
86-73-7	Fluorene	7.8	J	9.0	4.5
193-39-5	Indeno[1,2,3-cd]pyrene	52		9.0	4.5
90-12-0	1-Methylnaphthalene	12		9.0	4.2
91-57-6	2-Methylnaphthalene	15		9.0	4.5
91-20-3	Naphthalene	11		9.0	4.5
85-01-8	Phenanthrene	95		9.0	3.2
129-00-0	Pyrene	140		9.0	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	65		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511A-CS12"</u>	Lab Sample ID: <u>680-109515-2</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0618.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 13:55</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.09(g)</u>	Date Analyzed: <u>02/06/2015 19:01</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>11.4</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.5	U	7.5	3.7
208-96-8	Acenaphthylene	7.5	U	7.5	3.7
120-12-7	Anthracene	7.5	U	7.5	3.7
56-55-3	Benzo[a]anthracene	4.3	J	7.5	3.7
50-32-8	Benzo[a]pyrene	4.3	J	7.5	1.4
205-99-2	Benzo[b]fluoranthene	7.0	J	7.5	3.7
191-24-2	Benzo[g,h,i]perylene	3.7	J	7.5	3.7
207-08-9	Benzo[k]fluoranthene	2.9	J	7.5	2.3
218-01-9	Chrysene	5.5	J	7.5	3.7
53-70-3	Dibenz(a,h)anthracene	7.5	U	7.5	3.7
206-44-0	Fluoranthene	8.2		7.5	3.7
86-73-7	Fluorene	7.5	U	7.5	3.7
193-39-5	Indeno[1,2,3-cd]pyrene	7.5	U	7.5	3.7
90-12-0	1-Methylnaphthalene	7.5	U	7.5	3.5
91-57-6	2-Methylnaphthalene	7.5	U	7.5	3.7
91-20-3	Naphthalene	7.5	U	7.5	3.7
85-01-8	Phenanthrene	3.9	J	7.5	2.7
129-00-0	Pyrene	6.1	J	7.5	3.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	61		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511A-CS18"</u>	Lab Sample ID: <u>680-109515-3</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0707.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:00</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.06(g)</u>	Date Analyzed: <u>02/07/2015 11:52</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.0	U	8.0	3.9
208-96-8	Acenaphthylene	8.0	U	8.0	3.9
120-12-7	Anthracene	8.0	U	8.0	3.9
56-55-3	Benzo[a]anthracene	4.2	J	8.0	3.9
50-32-8	Benzo[a]pyrene	4.0	J	8.0	1.4
205-99-2	Benzo[b]fluoranthene	6.5	J	8.0	3.9
191-24-2	Benzo[g,h,i]perylene	5.9	J	8.0	3.9
207-08-9	Benzo[k]fluoranthene	8.0	U	8.0	2.4
218-01-9	Chrysene	4.6	J	8.0	3.9
53-70-3	Dibenz(a,h)anthracene	8.0	U	8.0	3.9
206-44-0	Fluoranthene	7.7	J	8.0	3.9
86-73-7	Fluorene	8.0	U	8.0	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	4.2	J	8.0	3.9
90-12-0	1-Methylnaphthalene	8.0	U	8.0	3.7
91-57-6	2-Methylnaphthalene	8.0	U	8.0	3.9
91-20-3	Naphthalene	8.0	U	8.0	3.9
85-01-8	Phenanthrene	8.0	U	8.0	2.9
129-00-0	Pyrene	5.9	J	8.0	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	60		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511A-CS24"</u>	Lab Sample ID: <u>680-109515-4</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0620.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:05</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.32(g)</u>	Date Analyzed: <u>02/06/2015 19:46</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.5</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	56		7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
120-12-7	Anthracene	89		7.9	3.9
56-55-3	Benzo[a]anthracene	140		7.9	3.9
50-32-8	Benzo[a]pyrene	120		7.9	1.4
205-99-2	Benzo[b]fluoranthene	150		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	61		7.9	3.9
207-08-9	Benzo[k]fluoranthene	81		7.9	2.4
218-01-9	Chrysene	140		7.9	3.9
53-70-3	Dibenz(a,h)anthracene	22		7.9	3.9
206-44-0	Fluoranthene	400		7.9	3.9
86-73-7	Fluorene	43		7.9	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	63		7.9	3.9
90-12-0	1-Methylnaphthalene	7.9	U	7.9	3.7
91-57-6	2-Methylnaphthalene	7.9	U	7.9	3.9
91-20-3	Naphthalene	7.9	U	7.9	3.9
85-01-8	Phenanthrene	340		7.9	2.8
129-00-0	Pyrene	250		7.9	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	56		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB3-GS6"</u>	Lab Sample ID: <u>680-109515-5</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0710.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:35</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.14(g)</u>	Date Analyzed: <u>02/07/2015 13:00</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>26.1</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	67	J	90	44
208-96-8	Acenaphthylene	90	U	90	44
120-12-7	Anthracene	210		90	44
56-55-3	Benzo[a]anthracene	650		90	44
50-32-8	Benzo[a]pyrene	520		90	16
205-99-2	Benzo[b]fluoranthene	790		90	44
191-24-2	Benzo[g,h,i]perylene	290		90	44
207-08-9	Benzo[k]fluoranthene	360		90	27
218-01-9	Chrysene	620		90	44
53-70-3	Dibenz(a,h)anthracene	96		90	44
206-44-0	Fluoranthene	1500		90	44
86-73-7	Fluorene	74	J	90	44
193-39-5	Indeno[1,2,3-cd]pyrene	250		90	44
90-12-0	1-Methylnaphthalene	90	U	90	42
91-57-6	2-Methylnaphthalene	90	U	90	44
91-20-3	Naphthalene	90	U	90	44
85-01-8	Phenanthrene	880		90	32
129-00-0	Pyrene	960		90	44

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB3-GS12"</u>	Lab Sample ID: <u>680-109515-6</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0616.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:40</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.05(g)</u>	Date Analyzed: <u>02/06/2015 18:15</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>26.1</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.1	U	9.1	4.5
208-96-8	Acenaphthylene	9.1	U	9.1	4.5
120-12-7	Anthracene	9.1	U	9.1	4.5
56-55-3	Benzo[a]anthracene	12		9.1	4.5
50-32-8	Benzo[a]pyrene	13		9.1	1.6
205-99-2	Benzo[b]fluoranthene	30		9.1	4.5
191-24-2	Benzo[g,h,i]perylene	16		9.1	4.5
207-08-9	Benzo[k]fluoranthene	8.3	J	9.1	2.7
218-01-9	Chrysene	23		9.1	4.5
53-70-3	Dibenz(a,h)anthracene	5.2	J	9.1	4.5
206-44-0	Fluoranthene	27		9.1	4.5
86-73-7	Fluorene	9.1	U	9.1	4.5
193-39-5	Indeno[1,2,3-cd]pyrene	12		9.1	4.5
90-12-0	1-Methylnaphthalene	4.5	J	9.1	4.2
91-57-6	2-Methylnaphthalene	5.8	J	9.1	4.5
91-20-3	Naphthalene	8.5	J	9.1	4.5
85-01-8	Phenanthrene	16		9.1	3.2
129-00-0	Pyrene	19		9.1	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	59		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB3-GS18"</u>	Lab Sample ID: <u>680-109515-7</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0622.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:45</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.00(g)</u>	Date Analyzed: <u>02/06/2015 20:32</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>23.9</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.8	U	8.8	4.3
208-96-8	Acenaphthylene	8.8	U	8.8	4.3
120-12-7	Anthracene	8.8	U	8.8	4.3
56-55-3	Benzo[a]anthracene	8.8	U	8.8	4.3
50-32-8	Benzo[a]pyrene	8.8	U	8.8	1.6
205-99-2	Benzo[b]fluoranthene	8.8	U	8.8	4.3
191-24-2	Benzo[g,h,i]perylene	8.8	U	8.8	4.3
207-08-9	Benzo[k]fluoranthene	8.8	U	8.8	2.6
218-01-9	Chrysene	8.8	U	8.8	4.3
53-70-3	Dibenz(a,h)anthracene	8.8	U	8.8	4.3
206-44-0	Fluoranthene	8.8	U	8.8	4.3
86-73-7	Fluorene	8.8	U	8.8	4.3
193-39-5	Indeno[1,2,3-cd]pyrene	8.8	U	8.8	4.3
90-12-0	1-Methylnaphthalene	8.8	U	8.8	4.1
91-57-6	2-Methylnaphthalene	8.8	U	8.8	4.3
91-20-3	Naphthalene	8.8	U	8.8	4.3
85-01-8	Phenanthrene	8.8	U	8.8	3.2
129-00-0	Pyrene	8.8	U	8.8	4.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	59		36-131

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB3-GS24"</u>	Lab Sample ID: <u>680-109515-8</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0623.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:50</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.31(g)</u>	Date Analyzed: <u>02/06/2015 20:55</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.4	U	9.4	4.6
208-96-8	Acenaphthylene	9.4	U	9.4	4.6
120-12-7	Anthracene	9.4	U	9.4	4.6
56-55-3	Benzo[a]anthracene	7.9	J	9.4	4.6
50-32-8	Benzo[a]pyrene	7.1	J	9.4	1.7
205-99-2	Benzo[b]fluoranthene	15		9.4	4.6
191-24-2	Benzo[g,h,i]perylene	6.0	J	9.4	4.6
207-08-9	Benzo[k]fluoranthene	4.1	J	9.4	2.8
218-01-9	Chrysene	11		9.4	4.6
53-70-3	Dibenz(a,h)anthracene	9.4	U	9.4	4.6
206-44-0	Fluoranthene	16		9.4	4.6
86-73-7	Fluorene	9.4	U	9.4	4.6
193-39-5	Indeno[1,2,3-cd]pyrene	4.8	J	9.4	4.6
90-12-0	1-Methylnaphthalene	9.4	U	9.4	4.3
91-57-6	2-Methylnaphthalene	9.4	U	9.4	4.6
91-20-3	Naphthalene	9.4	U	9.4	4.6
85-01-8	Phenanthrene	9.6		9.4	3.4
129-00-0	Pyrene	11		9.4	4.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	63		36-131

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB3-CS0-4"</u>	Lab Sample ID: <u>680-109515-9</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0624.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 14:45</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.02(g)</u>	Date Analyzed: <u>02/06/2015 21:17</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>39.4</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	11		11	5.4
208-96-8	Acenaphthylene	11	U	11	5.4
120-12-7	Anthracene	25		11	5.4
56-55-3	Benzo[a]anthracene	110		11	5.4
50-32-8	Benzo[a]pyrene	110		11	2.0
205-99-2	Benzo[b]fluoranthene	180		11	5.4
191-24-2	Benzo[g,h,i]perylene	80		11	5.4
207-08-9	Benzo[k]fluoranthene	68		11	3.3
218-01-9	Chrysene	150		11	5.4
53-70-3	Dibenz(a,h)anthracene	25		11	5.4
206-44-0	Fluoranthene	240		11	5.4
86-73-7	Fluorene	10	J	11	5.4
193-39-5	Indeno[1,2,3-cd]pyrene	60		11	5.4
90-12-0	1-Methylnaphthalene	25		11	5.1
91-57-6	2-Methylnaphthalene	34		11	5.4
91-20-3	Naphthalene	45		11	5.4
85-01-8	Phenanthrene	130		11	4.0
129-00-0	Pyrene	190		11	5.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	51		36-131

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB2-GS6"</u>	Lab Sample ID: <u>680-109515-10</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0711.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 15:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.13(g)</u>	Date Analyzed: <u>02/07/2015 13:23</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>15.8</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	43	J	79	39
208-96-8	Acenaphthylene	79	U	79	39
120-12-7	Anthracene	110		79	39
56-55-3	Benzo[a]anthracene	460		79	39
50-32-8	Benzo[a]pyrene	500		79	14
205-99-2	Benzo[b]fluoranthene	760		79	39
191-24-2	Benzo[g,h,i]perylene	400		79	39
207-08-9	Benzo[k]fluoranthene	300		79	24
218-01-9	Chrysene	480		79	39
53-70-3	Dibenz(a,h)anthracene	120		79	39
206-44-0	Fluoranthene	900		79	39
86-73-7	Fluorene	40	J	79	39
193-39-5	Indeno[1,2,3-cd]pyrene	300		79	39
90-12-0	1-Methylnaphthalene	79	U	79	37
91-57-6	2-Methylnaphthalene	79	U	79	39
91-20-3	Naphthalene	79	U	79	39
85-01-8	Phenanthrene	510		79	28
129-00-0	Pyrene	730		79	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB2-GS12"</u>	Lab Sample ID: <u>680-109515-11</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0626.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 15:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.20(g)</u>	Date Analyzed: <u>02/06/2015 22:03</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>15.5</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	26		7.9	3.9
208-96-8	Acenaphthylene	5.6	J	7.9	3.9
120-12-7	Anthracene	63		7.9	3.9
56-55-3	Benzo[a]anthracene	250		7.9	3.9
50-32-8	Benzo[a]pyrene	280		7.9	1.4
205-99-2	Benzo[b]fluoranthene	500		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	220		7.9	3.9
207-08-9	Benzo[k]fluoranthene	200		7.9	2.3
218-01-9	Chrysene	280		7.9	3.9
53-70-3	Dibenz(a,h)anthracene	76		7.9	3.9
206-44-0	Fluoranthene	480		7.9	3.9
86-73-7	Fluorene	27		7.9	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	160		7.9	3.9
90-12-0	1-Methylnaphthalene	10		7.9	3.6
91-57-6	2-Methylnaphthalene	13		7.9	3.9
91-20-3	Naphthalene	14		7.9	3.9
85-01-8	Phenanthrene	250		7.9	2.8
129-00-0	Pyrene	380		7.9	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	65		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB2-GS18"</u>	Lab Sample ID: <u>680-109515-12</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0627.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 15:25</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.02(g)</u>	Date Analyzed: <u>02/06/2015 22:26</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>26.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.1	U	9.1	4.5
208-96-8	Acenaphthylene	9.1	U	9.1	4.5
120-12-7	Anthracene	9.1	U	9.1	4.5
56-55-3	Benzo[a]anthracene	4.7	J	9.1	4.5
50-32-8	Benzo[a]pyrene	5.4	J	9.1	1.6
205-99-2	Benzo[b]fluoranthene	13		9.1	4.5
191-24-2	Benzo[g,h,i]perylene	7.6	J	9.1	4.5
207-08-9	Benzo[k]fluoranthene	3.5	J	9.1	2.7
218-01-9	Chrysene	8.6	J	9.1	4.5
53-70-3	Dibenz(a,h)anthracene	9.1	U	9.1	4.5
206-44-0	Fluoranthene	9.2		9.1	4.5
86-73-7	Fluorene	9.1	U	9.1	4.5
193-39-5	Indeno[1,2,3-cd]pyrene	4.9	J	9.1	4.5
90-12-0	1-Methylnaphthalene	9.1	U	9.1	4.2
91-57-6	2-Methylnaphthalene	9.1	U	9.1	4.5
91-20-3	Naphthalene	9.1	U	9.1	4.5
85-01-8	Phenanthrene	4.8	J	9.1	3.2
129-00-0	Pyrene	6.4	J	9.1	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	65		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB2-GS24"</u>	Lab Sample ID: <u>680-109515-13</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0628.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 15:30</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>29.94(g)</u>	Date Analyzed: <u>02/06/2015 22:49</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>24.1</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.8	U	8.8	4.4
208-96-8	Acenaphthylene	8.8	U	8.8	4.4
120-12-7	Anthracene	8.8	U	8.8	4.4
56-55-3	Benzo[a]anthracene	7.1	J	8.8	4.4
50-32-8	Benzo[a]pyrene	8.0	J	8.8	1.6
205-99-2	Benzo[b]fluoranthene	14		8.8	4.4
191-24-2	Benzo[g,h,i]perylene	6.8	J	8.8	4.4
207-08-9	Benzo[k]fluoranthene	4.3	J	8.8	2.6
218-01-9	Chrysene	9.4		8.8	4.4
53-70-3	Dibenz(a,h)anthracene	8.8	U	8.8	4.4
206-44-0	Fluoranthene	15		8.8	4.4
86-73-7	Fluorene	8.8	U	8.8	4.4
193-39-5	Indeno[1,2,3-cd]pyrene	5.1	J	8.8	4.4
90-12-0	1-Methylnaphthalene	8.8	U	8.8	4.1
91-57-6	2-Methylnaphthalene	8.8	U	8.8	4.4
91-20-3	Naphthalene	8.8	U	8.8	4.4
85-01-8	Phenanthrene	10		8.8	3.2
129-00-0	Pyrene	12		8.8	4.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	67		36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-1</u>
SDG No.: <u>680-109515-01</u>	
Client Sample ID: <u>CV0511AB2-CS0-4"</u>	Lab Sample ID: <u>680-109515-14</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0712.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/26/2015 15:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.01(g)</u>	Date Analyzed: <u>02/07/2015 13:46</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>34.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	200		100	50
208-96-8	Acenaphthylene	100	U	100	50
120-12-7	Anthracene	430		100	50
56-55-3	Benzo[a]anthracene	670		100	50
50-32-8	Benzo[a]pyrene	550		100	18
205-99-2	Benzo[b]fluoranthene	800		100	50
191-24-2	Benzo[g,h,i]perylene	340		100	50
207-08-9	Benzo[k]fluoranthene	350		100	30
218-01-9	Chrysene	660		100	50
53-70-3	Dibenz(a,h)anthracene	120		100	50
206-44-0	Fluoranthene	1500		100	50
86-73-7	Fluorene	200		100	50
193-39-5	Indeno[1,2,3-cd]pyrene	300		100	50
90-12-0	1-Methylnaphthalene	57	J	100	47
91-57-6	2-Methylnaphthalene	81	J	100	50
91-20-3	Naphthalene	110		100	50
85-01-8	Phenanthrene	1300		100	36
129-00-0	Pyrene	1000		100	50

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

Sample results have been qualified by URS based on the results of the data review per the QAPP for OT016 at Joint Base Charleston-Air, SC (URS Group, May 2014)